

wireless "link state advertisement"

- 1999

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Z Haas

W Chen

[BOOK] Wireless Ad Hoc Networks - group of 5 »

H AHMED

ZJ Haas... - 1999 - comm.toronto.edu

E Lin

R CALLON

Page 1. 1 Wireless Ad Hoc Networks ... All communications between all network entities in ad hoc networks are carried over the wireless medium.

in ad-hoc networks are carried over the wireless medium. ...

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Route Optimization and Location Updates for Mobile Hosts - group of 9 » W Chen, E Lin - International Conference on Distributed Computing Systems, 1996 - doi.ieeecomputersociety.org

... foreign agent .Af then sends the packet through the wireless interface to M ... Each link state advertisement begins with a common 20 byte header (Figure 3). Link ... Cited by 5 - Related Articles - Web Search - BL Direct

Route Optimization and Location Updates for Mobile Hosts - group of 4 » WCE Lin - Proceedings of the 16th International Conference on ..., 1996 - cs.tcd.ie ... MA is a router that communicates with mobile hosts through a wireless interface and ... Each link state advertisement begins with a common 20 byte header Figure 3 ... Cited by 1 - Related Articles - View as HTML - Web Search

Networks: A Visual Simulation Platform and Case Study - group of 3 » CA Funka-Lea, CL Janczewski, WC Lau, R Nagarajan, ... - Bell Labs Technical Journal, 1998 - doi.wiley.com

... C++ modules Cache computation Cache LCAC and link-state advertisement Local resource

database Path selection and GCAC Significant event Blocked/ last switch ...

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IP Switching for Scalable IP Services - group of 2 »

HM AHMED, R CALLON, AG MALIS, J MOY - PROCEEDINGS OF THE IEEE, 1997 - ieeexplore.ieee.org

... physical links. In this case, suppose that one of the routers has an OSPF link state advertisement (LSA) to transmit. Then, since ...

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R Guerin

A Orda

**D** Williams

S Deering

O Decili

D Estrin

QoS routing mechanisms and OSPF extensions - group of 6 »

RA Guerin, A Orda, D Williams - Global Telecommunications Conference, 1997.

GLOBECOM'97., ..., 1997 - ieeexplore.ieee.org

... 'The additions are built on top of OSPF V2 [1 ... In Section III, we consider the link

state advertisement mechanism and discuss several related approaches. ...

<u>Cited by 396 - Related Articles - Web Search - BL Direct</u>

# Implementation and performance measurements of QoS routingextensions to OSPF - group of 16 »

G Apostolopoulos, R Guerin, S Kamat - INFOCOM'99. Eighteenth Annual Joint Conference of the IEEE ..., 1999 - ieeexplore.ieee.org

... as path computation, **link state advertisement** gen- eration and reception, etc. Furthermore, we compare the cost of our QoS enhanced version of **OSPF** to that of ... Cited by 102 - Related Articles - Web Search - BL Direct

# An Experimental Study of Insider Attacks for the OSPF Routing Protocol - group of 7 »

B Vetter, F Wang, SF Wu - 5th IEEE International Conference on Network Protocols, ..., 1997 - doi.ieeecs.org

... In OSPF, the first step in the exchange of routing information is ... router's local neighborhood is then assembled into a link-state advertisement (LSA), which ... Cited by 22 - Related Articles - Web Search

Statistical anomaly detection for link-state routing protocols - group of 9 »

D Qu, BM Vetter, F Wang, R Narayan, SF Wu, YF Hou, ... - Network Protocols, 1998.

Proceedings. Sixth International ..., 1998 - ieeexplore.ieee.org
... 3). continuousorcountingmeasures, whose values are numeric, like LSA (Link State
Advertisement) age or CPU usage, and (4) audit record distribution. ... 3 OSPF Attacks ...

Cited by 29 - Related Articles - Web Search - Library Search

# System for generating explicit routing advertisements to specify a selected path through a ... - group of 3 »

ES Crawley, Z Zhang, WM Salkewicz - US Patent 5,881,246, 1999 - Google Patents ... OSPF proto -col. 50 55 60 65 As link state routing protocols develop, new types of link state advertisements are created and existing link state advertisement ... Cited by 42 - Related Articles - Web Search

# Techniques for automated network map generation using SNMP - group of 4

Mansfield, M Ouchi, K Jayanthi, Y Kimura, K Ohta ... - INFOCOM'96. Fifteenth Annual Joint Conference of the IEEE ..., 1996 - ieeexplore.ieee.org
 ... j . .. OSPF-MiB INFO Components Figure 2: OSPF-MIB information ... The related link state details are given Link State Advertisement- ospflsdbddvt. ...
 Cited by 23 - Related Articles - Web Search - BL Direct

# Path QoS Collection for Stable Hop-by-Hop QoS Routing

Y Goto, M Ohta, K Araki - Proceedings of INET, 1997 - isoc.org

... QoSLSAP (QoS link state advertisement protocol) QoSLSAP is an LSAP link state that includes ... 4] is a proposed QoS routing protocol that extends OSPF and MOSPF ... Cited by 16 - Related Articles - Cached - Web Search

# Method and apparatus for providing quality of service routing in a network group of 2 »

ES Crawley, Z Zhang, WM Salkewicz, CA Sanchez - US Patent 5,995,503, 1999 - Google Patents

... 1993. Moy, OSPF (Open Shortest Path First) Version 2, Network Working Group Request for Comments: 1583, Mar. 1994. ... MOSPF is a multicasting extension to OSPF. ... Cited by 45 - Related Articles - Web Search

## Open shortest path first (OSPF) routing protocol simulation - group of 4 » D Sidhu, T Fu, S Abdallah, R Nair, R Coltun - Applications, Technologies, Architectures, and Protocols for ..., 1993 - portal.acm.org

Page 1. Open Shortest Path First (OSPF) Routing Protocol Simulation\* ... and the Flooding Protocols. Section 3 contains summary and conclusions. 2 OSPF Simulation ...

Cited by 18 - Related Articles - Web Search - BL Direct

## On the vulnerabilities and protection of OSPF routing protocol - group of 8 » F Wang, SF Wu - Computer Communications and Networks, 1998. Proceedings. 7th ..., 1998 - ieeexplore.ieee.org

... learning their names; Every router constructs a packet known as link state advertisement(LSA), which ... The purpose of this paper is to take OSPF as an exam- ple ... Cited by 9 - Related Articles - Web Search

# Method and apparatus for managing exchange of metrics in a computer network by exchanging only ... - group of 3 » R Callon - US Patent 5,600,794, 1997 - Google Patents

... count), while others allow use of multiple characteristics, eg, OSPF (see, J ... It is worthwhile to briefly mention the use of link state advertisement in routing ... Cited by 16 - Related Articles - Web Search

## [PS] Secure routing protocols: Theory and practice - group of 2 » F Wang, B Vetter, S Wu - North Carolina State University, May, 1997 - earth.cis.udel.edu ... An example from OSPF works as following: AS external link (Type 5 ... System (except for Stub areas); all other types of link state advertisement are specific to a ...

Cited by 20 - Related Articles - View as HTML - Web Search

# Parallel Routing Table Computation for Scalable IP Routers - group of 7 » X Xiao, LM Ni - Proceedings of the IEEE International Workshop on ..., 1998 - sfc.wide.ad.jp ... algorithm can be summarized below: 1. Every RN runs its own OSPF protocol as ... 2.1 For a non-DRN, it simply forwards the link state advertisement to its DRN; 2.2 ... Cited by 7 - Related Articles - View as HTML - Web Search - BL Direct

# Route Optimization and Location Updates for Mobile Hosts - group of 9 » W Chen, E Lin - International Conference on Distributed Computing Systems, 1996 doi.ieeecomputersociety.org

... OSPF header with Type 4, followed by the number of link state ad- vertisements and all the link state advertisements in sequence. Each link state advertisement ... Cited by 5 - Related Articles - Web Search - BL Direct

# An architecture for wide-area multicast routing - group of 35 »

S Deering, D Estrin, D Farinacci, CG Liu, L Wei - Proceedings of the conference on Communications ..., 1994 - portal.acm.org

... exten- sion to the link-state unica.st protocol **OSPF**), is executed on routers to construct multicast packet delivery paths and to ...

Cited by 362 - Related Articles - Web Search - BL Direct

# Reducing routing table computation cost in OSPF - group of 3 »

X Xiao, L Ni - Internet Workshop, 1999. IWS 99, 1999 - ieeexplore.ieee.org

... For an intra-area link change, the agent for the changed WARR is guaranteed to receive this link state advertisement (LSA). Compared to OSPF, Step 2 of the ...

Cited by 5 - Related Articles - Web Search

## [CITATION] Redundant Link State Advertisement Reduction in OSPF

S Kini, R Dube - 1999 - Tech Memo, Bell Laboratories

Cited by 1 - Related Articles - Web Search

# [PS] An Agent-based Architecture for Advance Reservations - group of 10 »

O Schelen, S Pink - IEEE 22nd Annual Conference on Computer Networks (LCN'97), ..., 1997 - sm.luth.se

... routers next to the failed link will detect the problem rst, eg, through the OSPF HELLO messages. This will trigger a **link state advertisement** to other nodes ... Cited by 38 - Related Articles - View as HTML - Web Search - BL Direct

## Release 5.0 - group of 6 »

C Guide - Kubota Pacific Computer Inc., Santa Clara, CA, 1991 - juniper.net Page 1. Juniper Networks, Inc. 1194 North Mathilda Avenue Sunnyvale, CA 94089 USA 408-745-2000 www.juniper.net Part Number: 530--004547-01, Revision 1 JUNOS ™ ... Cited by 8 - Related Articles - View as HTML - Web Search

# <u>SUBMARINE</u>: an architecture for IP routing over large NBMA networks - group of 6 »

AG Lauck, CR Kalmanek, KK Ramakrishnan - INFOCOM'99. Eighteenth Annual Joint Conference of the IEEE ..., 1999 - ieeexplore.ieee.org

... We describe the use of a link-state internal routing proto- col, such as OSPF [11] with a few extensions, below. The external routing protocol is BGP [12]. ...

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### Rsvp integrated multicast (rim)

K Fujikawa, K Ikeda - Proc. of INET, 1999 - isoc.org

... RIM requires some QoS Link-State Advertisement Protocol (QoSLSAP) in order to be applied to an actual ... [QOSPF] "Quality of Service Extensions to OSPF or Quality ... Cited by 3 - Related Articles - Cached - Web Search

#### OSPF DESIGN GUIDE - group of 47 »

S Halabi - Cisco Systems Network Supported Accounts, 1996 - sol.te.net.ua ... OSPF uses a link-state algorithm in order to build and calculate the ... to any change in routing information, a router will generate a link-state advertisement. ... Cited by 3 - Related Articles - View as HTML - Web Search

# <u>Distributed connection-oriented services for switched communications networks</u> - group of 5 »

K Dobbins, TA Grant, DJ Ruffen, L Kane, T Len, P ... - US Patent 5,825,772, 1998 - Google Patents

Page 1. United States Patent Dobbins et al. [54] DISTRIBUTED CONNECTION-ORIENTED SERVICES FOR SWITCHED COMMUNICATIONS NETWORKS [75 ... Cited by 132 - Related Articles - Web Search

# [DOC] Survey of Different Multicast Routing Protocols

M Capan - Mipro, 1998 - cn.carnet.hr

... The **OSPF** link state database provides a complete description of the Autonomous System's

topology. By adding a new type of link state advertisement (LSA), the ...

Cited by 2 - Related Articles - View as HTML - Web Search

Route Optimization and Location Updates for Mobile Hosts - group of 4 » WCE Lin - Proceedings of the 16th International Conference on ..., 1996 - cs.tcd.ie ... LS Checksum Figure 3. The link state advertisement header ... For router links, Link State ID and Advertising Router are both the OSPF Router IDof the router. ... Cited by 1 - Related Articles - View as HTML - Web Search

# IP Switching for Scalable IP Services - group of 2 »

HM AHMED, R CALLON, AG MALIS, J MOY - PROCEEDINGS OF THE IEEE, 1997 - ieeexplore.ieee.org

... physical links. In this case, suppose that one of the routers has an OSPF link state advertisement (LSA) to transmit. Then, since ... Cited by 19 - Related Articles - Web Search - BL Direct

# Performance Analysis and Improvement of the Open Shortest Path First Routing Protocol

MM Ahmed - 1999 - collectionscanada.ca

... Page 3. Open Shonest Path First (**OSPF**) is a popular routing protocol designed to support ... In this research, the performance of the **OSPF** protocol was studied. ... Web Search - Library Search

#### An SPF-based routing algorithm for SMDS networks

ME Sosa, MA Figueroa - ... Conference, 1992. Conference Record., GLOBECOM'92.' ..., 1992 - ieeexplore.ieee.org

... networks connected to the RME (ie, type 3 links) in the RME's RME Link State

Advertisement (type 1 LSA), which corresponds to the Router Links LSA of OSPF. ...

Related Articles - Web Search

## Advanced data networking—acronyms - group of 2 »

ATM AESA - BT Technology Journal, 1998 - Springer

... LSA link state advertisement LSR label switch router LUNI LAN emulation user/network interface ... MNS managed network services M-OSPF multicast extensions to OSPF ... Web Search

### Efficient load balancing for UBR traffic in ATM networks

H Zhang, I Chlamtac, A Farago, AC Inc, MA Westford - Communications, 1999. ICC'99. 1999 IEEE International ..., 1999 - ieeexplore.ieee.org

... selected. Because of the r pop- ularity, in this paper we consider link-state routing pro- tocols such as OSPF [6], PNNI [4], etc.. ...

Related Articles - Web Search - BL Direct

# Intradomain QoS routing in IP networks: a feasibility andcost/benefit analysis - group of 15 »

G Apostolopoulos, R Guerin, S Kamat, A Orda, SK ... - Network, IEEE, 1999 -

ieeexplore.ieee.org

... Figure 1 depicts a simple functional block diagram for this model, for the case of a link state protocol such as Open Shoitest Path First (OSPF) [5]. ...

Cited by 52 - Related Articles - Web Search - BL Direct

# Classification and Comparison of Schemes for Providing Scalable IP Services Over ATM Networks - group of 3 »

P Boustead, J Chicharo, G Anido - Proceedings of the 7th IEEE International Conference on ..., 1999 - doi.ieeecomputersociety.org

... This similarity al- lows easy extension of **OSPF** to allow QoS routing. Opaque **Link-State Advertisement** (Opaque-LSA) can be used to flood the network with QoS ... Related Articles - Web Search

# On reducing the processing cost of on-demand QoS path computation - group of 11 »

G Apostolopoulos - Journal of High Speed Networks, 1998 - IOS Press ... The exact cost of retrieving a **link state advertisement** from the database depends on its implementation details. In well known **OSPF** implementations such as the ... <u>Cited by 22 - Related Articles - Web Search - BL Direct</u>

[воок] Wireless Ad Hoc Networks - group of 5 »

ZJ Haas... - 1999 - comm.toronto.edu

Page 1. 1 Wireless Ad Hoc Networks Zygmunt J. Haas, Jing Deng, Ben Liang,

Panagiotis Papadimitratos, and S. Sajama Cornell University ...

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ospf "link state advertisement" Search

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S3	RD (unique items)	1	Display
S4	S1 AND WIRELESS	1	Display
S5	OSPF AND WIRELESS AND MOBILE	262	Display
S6	S5 AND HANDOFF	8	Display

Format
Free
Number of Records
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# Manpage of NEMESIS-OSPF

**OSPF Link** State **Advertisement** (LSA) related options ... **OSPF** Autonomous System External **Link Advertisement** (LSA\_AS\_EXT) options ... nemesis.sourceforge.net/manpages/nemesis-**ospf**.1.html - 9k - Cached - Similar pages

# OSPF Link-State Advertisement (LSA) Throttling [Cisco IOS Software ...

The OSPF Link-State Advertisement (LSA) Throttling feature provides a dynamic mechanism to slow down link-state advertisement (LSA) updates in OSPF during ... www.cisco.com/en/US/products/sw/iosswrel/ps1829/products\_feature\_guide09186a0080161064.html - 105k - Cached - Similar pages

### 3.4. **OSPF Link** State Database

OSPF Link State Database -- The Link State Database contains the Link State -- Advertisements from throughout the areas that the -- device is attached to. ... www.freesoft.org/CIE/RFC/1850/16d.htm - 7k - Cached - Similar pages

### 12.4.5. AS external links

The encoding of TOS in **OSPF link** state **advertisements** is described in Section 12.3. If the T-bit of the **advertisement's** Options field is clear, ... www.freesoft.org/CIE/RFC/1583/74.htm - 9k - <u>Cached</u> - <u>Similar pages</u>

## CCDP: Cisco Internetwork Design Study Guide: The IP Routing Protocols

This feature aids in the fast convergence offered by the protocol. There are five primary types of **OSPF link**-state **advertisements**, as identified in Table ... www.unix.org.ua/cisco/CCNP-CCDP/CID-Sybex/ch04/04-08.html - 11k -

### IPv6 in Practice—Index

LSA (link state advertisement, OSPF) 247, 253 Isof command (Linux) 86 ... mobile anchor point (MAP) 323 mobile node (MN) 319 mobile router 322 ... www.benedikt-stockebrand.de/ipv6-in-practice-index\_e.html - 109k - Cached - Similar pages

[PDF]

# M. Ghassemian, P. Hofmann, H. Aghvami, C. Prehofer: Analyses of ...

File Format: PDF/Adobe Acrobat

MAP/1: mobility **anchor point** assigns a prefix and the. mobile node uses the global address for ... QoSPF **link** state **advertisements** generate about 15% of the ... www.docomoeurolabs.de/pdf/publications/FNL\_analyses\_of\_addressing\_03.pdf - <u>Similar pages</u>

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- File 483:Newspaper Abs Daily 1986-2007/Mar 11
  - (c) 2007 ProQuest Info&Learning
- Set Items Description
- S1 1555 OSPF OR OPEN()SHORTEST()PATH()FIRST
- S2 192604 ADVERTISEMENT OR ADVERTISI???
- S3 415 S2(3N)LINK???
- S4 314658 (WIRELESS OR MOBILE)(3N)(COMMUNICATION?? OR NETWORK??)
- S5 1395 ANCHOR()POINT??
- S6 731 AU=(BENDER, P? OR BENDER P?)
- S7 0 S6 AND S1
- S8 0 S6 AND S3
- S9 0 S1 AND S3 AND S5
- S10 38 S1 AND S3
- S11 0 S10 AND ANCHOR
- **S12** 3 **S10** AND POINT??
- S13 3 RD S12 (unique items)

S14 2 S10 NOT PY=>2000

S15 2 S14 NOT S13

S16 1 RD S15 (unique items)

#### 13/3,K/1 (Item 1 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

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10209636 E.I. No: EIP05028776151

Title: Design of OSPF protocol for wireless IP networks

Author: Kato, Toshihiko; Takanashi, Kenichi; Itoh, Shuichi; Sugata,

Akinori; Kojima, Fumihide; Fujise, Msayuki

Corporate Source: University of Electro-Communications, Chofu-shi, Tokyo

182-8585, Japan

Conference Title: Proceedings of the IASTED International Conference on

Communication Systems and Networks

Conference Location: Marbella, Spain Conference Date: 20040901-20040903

E.I. Conference No.: 64122

Source: Proceedings of the IASTED International Conference on

Communication Systems and Networks Proceedings of the IASTED International

Conference on Communication Systems and Networks 2004.

Publication Year: 2004 ISBN: 088986456X Language: English

#### Title: Design of OSPF protocol for wireless IP networks

...Abstract: In order to implement a large scale wireless network, it is useful to connect access **points** (APs) which cover individual subnetworks by wireless link. In this case, since those APs work...

...routers, some routing protocols needs to be introduced among them. We have proposed to use **OSPF** among those wireless routers. However, the current **OSPF** does not take account of wireless router networks which have limited broadcast capability among routers...

...we propose a new procedure in which the overhead of database exchange and flooding of **link** state **advertisement**. This paper describes the design principles and the detailed design including packet format, control data

Identifiers: Routing protocols; Wireless router networks; **Point** -to-multipoint networks

### 13/3,K/2 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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05029667 JICST ACCESSION NUMBER: 01A0853112 FILE SEGMENT: JICST-E Internet Failure Detection Based on Route Alteration Surveillance.

YOKOTA HIDETOSHI (1); SHIMBO HIROYUKI (1); IDOUE AKIRA (1); KATO TOSHIHIKO

(1)

(1) Kddiken

Joho Shori Gakkai Shinpojiumu Ronbunshu, 2001, VOL.2001, NO.7, PAGE.483-488

, FIG.11, TBL.1, REF.4

JOURNAL NUMBER: Y0978BAT ISSN NO: 1344-0640 UNIVERSAL DECIMAL CLASSIFICATION: 681.3:654

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Conference Proceeding ARTICLE TYPE: Short Communication MEDIA TYPE: Printed Publication

...ABSTRACT: makes it more important to be able to detect network failures and spot the fault points as quickly as possible. We have been studying the failure detection method combing state monitoring...

...and controlled in a distributed fashion, which makes it more difficult to identify the fault points. We propose a method to watch the state of the network based on link state advertisement messages of OSPF, and to identify the failure nodes by collecting and analyzing the routing information and its...

**IDENTIFIERS: OSPF** 

#### 13/3,K/3 (Item 1 from file: 95)

DIALOG(R)File 95:TEME-Technology & Management (c) 2007 FIZ TECHNIK. All rts. reserv.

#### 01633093 20020302782

## Multimediaverbindungen ueber Internet-Protokolle - Teil 3

Sos, E

Dt. Telekom, Bayreuth, D

Unterrichtsblaetter (Deutsche Telekom), v55, n3, pp140-154, 2002

Document type: journal article Language: German

Record type: Abstract ISSN: 0942-7287

#### ABSTRACT:

Im dritten Teil des Beitrages zum Thema 'Multimediaverbindungen ueber Internetprotokolle' wird das Routing-Protokoll OSPF (Open Shortest Path First ) vorgestellt und erlaeutert. Es wurde von der IETF (Internet Engineering Task Force) entwickelt und verwendet den Shortest-Path-First-Algorithmus von Dijkstra. Die Vorteile des OSPF sind neben der Verwendung von Bereichen (Areas) eine frei waehlbare Metrik sowie die Authentisierung fuer ein sicheres Routing. Das OSPF -Protokoll legt die Netzwerktypen Broadcast, Point -to-Point, Point -to-Multipoint, NBMA (Non-Broadcast-Multiple-Access) sowie virtuelle Verbindungen fest und verwendet unterschiedliche Router-Typen, z.B. Internal Router, Designated Router oder Backbone Router. OSPF beruht auf dem LSA (Link Status Advertisement), d.h. jeder Router kennt die komplette Netztopologie mit allen Verbindungen und Routern und ist somit fuer grosse Netze geeignet. Momentan zaehlt OSPF zu den bedeutendsten Internet-Routing-Protokollen und wird als Nachfolger des RIP (Routing Information Protocol... ...IDENTIFIERS: LINK STATUS ADVERTISEMENT); OSPF -- (OPEN ...

...OPEN SHORTEST PATH FIRST); Internet; Routing.Protokoll; Multimediaverbindung

16/3,K/1 (Item 1 from file: 2) DIALOG(R)File 2:INSPEC

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06938842 INSPEC Abstract Number: B9807-6210L-105, C9807-5620W-066

Title: QoS routing mechanisms and OSPF extensions

Author(s): Guerin, R.A.; Orda, A.; Williams, D.

Author Affiliation: IBM Thomas J. Watson Res. Center, Yorktown Heights,

NY, USA

Conference Title: GLOBECOM 97. IEEE Global Telecommunications Conference.

Conference Record (Cat. No.97CH36125) Part vol.3 p.1903-8 vol.3

Publisher: IEEE, New York, NY, USA

Publication Date: 1997 Country of Publication: USA 3 vol. xxvii+1962

pp.

ISBN: 0 7803 4198 8 Material Identity Number: XX97-02850 U.S. Copyright Clearance Center Code: 0 7803 4198 8/97/\$10.00

Conference Title: GLOBECOM 97. IEEE Global Telecommunications Conference.

Conference Record

Conference Sponsor: Bull Worldwide Inf. Syst

Conference Date: 3-8 Nov. 1997 Conference Location: Phoenix, AZ, USA

Language: English Subfile: B C

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...Identifiers: link advertisement mechanisms...

?

#### PATENT FILES

File 344: Chinese Patents Abs Jan 1985-2006/Jan

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File 347:JAPIO Dec 1976-2006/Nov(Updated 070228)

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File 350:Derwent WPIX 1963-2006/UD=200717

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Set Items Description

S1 181 OSPF OR OPEN()SHORTEST()PATH()FIRST

S2 47731 ADVERTISEMENT OR ADVERTISI???

S3 536 S2(3N)LINK???

S4 161338 (WIRELESS OR MOBILE)(3N)(COMMUNICATION?? OR NETWORK??)

S5 1990 ANCHOR()POINT??

S6 168 AU=(BENDER, P? OR BENDER P?)

S7 1 S6 AND S5

S8 1 S1 AND S3 AND S5

S9 0 S8 NOT S7

S10 20 S1 AND S3

\$11 3 \$10 AND POINT??

S12 2 S11 NOT S8

## 7/3,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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0010900991 - Drawing available WPI ACC NO: 2001-521752/200157 XRPX Acc No: N2001-386668

Data anchor point relocation in decentralized serving network of

telecommunication system, involves sending standard routing messages to router to route packets with destination address of anchor point to other entity

Patent Assignee: BENDER P E (BEND-I); QUALCOMM INC (QUAL-N)

Inventor: BENDER P E

Patent Family (12 patents, 93 countries)

Patent

Application

Number Kind Date Number Kind Date Update

WO 2001033893 A2 20010510 WO 2000US30100 A 20001031 200157 B AU 200120405 A 20010514 AU 200120405 A 20001031 200157 E

US 6366561 B1 20020402 US 1999163325 P 19991103 200226 E

US 1999451400 A 19991130

US 20020041568 A1 20020411 US 1999163325 P 19991103 200227 E

US 1999451400 A 19991130 US 20012537 A 20011115

EP 1226735 A2 20020731 EP 2000983677 A 20001031 200257 E

WO 2000US30100 A 20001031

KR 2002059678 A 20020713 KR 2002705734 A 20020503 200306 E BR 200015249 A 20021231 BR 200015249 A 20001031 200309 E

WO 2000US30100 A 20001031

JP 2003513575 W 20030408 WO 2000US30100 A 20001031 200333 E

JP 2001534914 A 20001031

CN 1415177 A 20030430 CN 2000818172 A 20001031 200351 E

AU 778435 B2 20041202 AU 200120405 A 20001031 200506 E

CN 1829196 A 20060906 CN 200610003724 A 20001031 200680 E

CN 1272982 C 20060830 CN·2000818172 A 20001031 200682 E

Priority Applications (no., kind, date): US 1999163325 P 19991103; US 1999451400 A 19991130; US 20012537 A 20011115

#### **Patent Details**

Number Kind Lan Pg Dwg Filing Notes WO 2001033893 A2 EN 46 11

National Designated States, Original: AE AG AL AM AT AU AZ BA BB BG BR BY

BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ

PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Regional Designated States, Original: AT BE CH CY DE DK EA ES FI FR GB GH

GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200120405 A EN

Based on OPI patent WO 2001033893

US 6366561 B1 EN

Related to Provisional US 1999163325

US 20020041568 A1 EN

Related to Provisional US 1999163325

Division of application US 1999451400

EP 1226735 A2 EN PCT Application WO 2000US30100 Based on OPI patent WO 2001033893

Regional Designated States, Original: AL AT BE CH CY DE DK ES FI FR GB GR

IE IT LI LT LU LV MC MK NL PT RO SE SI

BR 200015249 A PT PCT Application WO 2000US30100

Based on OPI patent WO 2001033893

JP 2003513575 W JA 61 PCT Application WO 2000US30100

Based on OPI patent WO 2001033893

AU 778435 B2 EN Previously issued patent AU 200120405

Based on OPI patent WO 2001033893

Data anchor point relocation in decentralized serving network of telecommunication system, involves sending standard routing messages to router to route packets with destination address of anchor point to other entity

Inventor: BENDER P E

Alerting Abstract ...NOVELTY - Service devices of decentralized server network are in communication with anchor points of entities. A relocation message of anchor point is sent from one entity to another and accordingly a set of components are copied...

...from the multiple entities to indicate to the routers that packets containing destination address of **anchor point** should be routed to another entity....DESCRIPTION OF DRAWINGS - The figure shows the flowchart of the **anchor point** transfer methodology.

### Original Publication Data by Authority

Inventor name & address:

BENDER P E ...

- ... BENDER P E ...
- ... BENDER, Paul, E ...
- ... Bender, Paul E ...
- ... Bender, Paul E ...

#### ... BENDER, Paul, E

#### Claims:

...plurality of entities and wherein a first entity of said plurality of entities contains an anchor point and wherein said decentralized serving network also comprises a plurality of routers, and wherein said...

...service devices for providing standardized services for a plurality of access terminals, and wherein said **anchor point** is in communications with a service device of said plurality of service devices, a method for relocating said **anchor point** to a second entity of said plurality of entities, the method comprising the steps:transmitting...

...between said first entity and said second entity; copying a set of components of said anchor point from said first entity to said second entity, in accordance with said at least one...

...routers of said plurality of routers that packets containing a destination address associated with said **anchor point** should be routed to said second entity.

12/3,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX (c) 2007 The Thomson Corporation. All rts. reserv.

0015533651 - Drawing available WPI ACC NO: 2006-097801/200610

XRPX Acc No: N2006-084770

Method of establishing explicit constraint edge-to-edge path in internet protocol network, involves transmitting traffic engineering link state advertisement message directly to nearest traffic engineering route exchange router

Patent Assignee: NORTEL NETWORKS LTD (NELE)

Inventor: LEE C Y

Patent Family (1 patents, 1 countries)
Patent Application

Number Kind Date Number Kind Date Update

US 6985959 B1 20060110 US 2000704291 A 20001101 200610 B

Priority Applications (no., kind, date): US 2000704291 A 20001101

#### **Patent Details**

Number Kind Lan Pg Dwg Filing Notes US 6985959 B1 EN 13 4

...establishing explicit constraint edge-to-edge path in internet protocol network, involves transmitting traffic engineering link state advertisement message directly to nearest traffic engineering route exchange router

Alerting Abstract ...NOVELTY - A traffic engineering link state advertisement (TE-LSA) message is directly transmitted to nearest traffic engineering route exchange router (TE-X) from open short path first (OSPF) router, without flooding other routers, to permit each TE-X to maintain traffic engineering link...

...optical network using open short path first (OSPF) routing protocol.

#### **Original Publication Data by Authority**

#### **Original Abstracts:**

...traffic engineering route exchanger routers (TE-Xs) are used in an open shortest path first (OSPF) routing area to collect Traffic Engineering Link State Advertisements (TE-LSAs) and exchange the TE-LSAs with other TE...

...LSAs and compute explicit routes required by edge routers. A single point of failure that exists when a single centralized TE database is used is thereby eliminated. The TE-Xs peer...

#### Claims:

...MPLS and Optical network that uses a modified open shortest path first (OSPF) routing protocol for constraint route distribution and path computation, comprising steps of:provisioning at least one OSPF router in the network that supports constraint path setup with traffic engineering route exchange router (TE-X) functionality to provide edge routers in the...

...routes; sending traffic engineering link state advertisement (TE-LSA) messages directly via unicast from the OSPF routers to only a nearest one of the at least one TE-X, without flooding the TE-LSAs to other routers in the network, to permit...

12/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2007 The Thomson Corporation. All rts. reserv.

0015155808 - Drawing available WPI ACC NO: 2005-505388/200551 XRPX Acc No: N2005-412484

Controlling method for dissemination of routing information in ad-hoc wireless network, involves forwarding link state advertisement, according to ascertained distance information included in advertisement

Patent Assignee: NORTEL NETWORKS LTD (NELE)

Inventor: SMITH P A

Patent Family (1 patents, 1 countries)

Patent

Application

Number Kind Date Number Kind Date Update
US 20050152333 A1 20050714 US 2004757139 A 20040114 200551 B

Priority Applications (no., kind, date): US 2004757139 A 20040114

#### **Patent Details**

Number Kind Lan Pg Dwg Filing Notes US 20050152333 A1 EN 12 8

Controlling method for dissemination of routing information in ad-hoc wireless network, involves forwarding link state advertisement, according to ascertained distance information included in advertisement

Alerting Abstract ... NOVELTY - A link state advertisement (LSA) from communication network is received and distance information is obtained from the LSA. The...

...Ethernet frames, data cells, segments, etc., using protocols like open shortest path first (OSPF) protocol and intermediate system - to - intermediate system (Is-Is) protocol...

...primarily to or from a limited number of focal points on the network.

#### **Original Publication Data by Authority**

#### Claims:

...network, the method comprising the steps of:receiving a link state advertisement from the network; ascertaining distance information associated with at least one of the link state advertisement and link state information contained in the link state advertisement; and selectively forwarding the link state advertisement on the network, the step of selectively forwarding depending on the ascertained distance information.

?

#### **FULLTEXT PATENT FILES**

#### File 348:EUROPEAN PATENTS 1978-2007/ 200708

(c) 2007 European Patent Office

File 349:PCT FULLTEXT 1979-2007/UB=20070308UT=20070301

(c) 2007 WIPO/Thomson

- Set Items Description
- S1 1266 OSPF OR OPEN()SHORTEST()PATH()FIRST
- S2 28040 ADVERTISEMENT OR ADVERTISI???
- S3 1136 S2(3N)LINK???
- S4 111153 (WIRELESS OR MOBILE)(3N)(COMMUNICATION?? OR NETWORK??)
- S5 3183 ANCHOR()POINT??
- S6 216 AU=(BENDER, P? OR BENDER P?)
- S7 1 S6 AND S3
- S8 75 S1(S)S3
- S9 0 S8(S)S5
- \$10 11 \$8(\$)POINT??
- S11 10 S10 NOT S7
- S12 1 S11 NOT AD=19991103:20070313/PR

#### 7/3,K/1 (Item 1 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

(c) 2007 WIPO/Thomson. All rts. reserv.

00800277 \*\*Image available\*\*

# METHOD AND APPARATUS FOR PROVIDING MOBILITY WITHIN A NETWORK PROCEDE ET APPAREIL ASSURANT LA MOBILITE AU SEIN D'UN RESEAU

Patent Applicant/Assignee:

QUALCOMM INCORPORATED, 5775 Morehouse Drive, San Diego, CA 92121-1714, US, US (Residence), US (Nationality)

Inventor(s):

BENDER Paul E, 2879 Angell Avenue, San Diego, CA 92122, US,

Legal Representative:

WADSWORTH Philip R (et al) (agent), Qualcomm Incorporated, 5775 Morehouse Drive, San Diego, CA 92121-1714, US,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200133893 A2-A3 20010510 (WO 0133893)

Application:

WO 2000US30100 20001031 (PCT/WO US0030100)

Priority Application: US 99163325 19991103; US 99451400 19991130

Designated States:

(Protection type is "patent" unless otherwise stated - for applications

prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM

TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

Publication Language: English Filing Language: English Fulltext Word Count: 11276

Inventor(s):

BENDER Paul E ...

Fulltext Availability:
Detailed Description
Claims

#### Detàiled Description

... IETF RFC 2328). The OSPF protocol has an age field that is transmitted in each Link State Advertisement message. The age field indicates to a receiving router how long the Link State Advertisement should remain valid for. A receiving router associates an age with the Link State Advertisement consistent with the age field received in a Link State Advertisement. A receiving router increments the associated ages for its routes as time passes. A receiving...IPc,,,, at a nominally low cost. In the exemplary embodiment, this message is an OSPF link state advertisement (LSA). In one embodiment, the message sent is an IP broadcast or multicast message, thus...of this address to MPC 320A). In the exemplary embodiment, this message is an OSPF link state advertisement. As all of the routers in network 120 are OSPF capable, this new low cost...

...IPDCrAA at a nominally high cost. In the exemplary embodiment, this message is an OSPF link state advertisement (LSA). In one embodiment, the message sent is an IP broadcast message, thus allowing a...containing an IP address, such as a laptop computer, frequently sends a broadcast (or multicast) link state advertisement containing an Age field that is slightly lower than the value of MaxAge. These link...

#### Claim

... providing mobility within a network comprising the step of:

a remote system transmitting an OSPF link state advertisement at predetermined intervals.

24 The method of Claim 23 wherein said link advertisement contains: a low cost associated with the routing of packets having an IP address of

?

12/3,K/1 (Item 1 from file: 349) DIALOG(R)File 349:PCT FULLTEXT (c) 2007 WIPO/Thomson. All rts. reserv.

00539951 \*\*Image available\*\*

SYSTEM AND METHOD FOR FACILITATING RECOVERY FROM COMMUNICATION LINK

FAILURES IN A DIGITAL DATA NETWORK SYSTEME ET PROCEDE ASSURANT LE RETABLISSEMENT DE LIAISONS DE COMMUNICATION

DEFAILLANTES DANS UN RESEAU DE DONNEES NUMERIQUES

Patent Applicant/Assignee:

IRONBRIDGE NETWORKS INC,

Inventor(s):

CALLON Ross W,

MAISON Thierry,

Patent and Priority Information (Country, Number, Date):

Patent:

WO 200003324 A1 20000120 (WO 0003324)

Application:

WO 99US15027 19990701 (PCT/WO US9915027)

Priority Application: US 98113491 19980710

**Designated States:** 

(Protection type is "patent" unless otherwise stated - for applications

prior to 2004)

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

Publication Language: English Fulltext Word Count: 8717

Fulltext Availability: Detailed Description

### Detailed Description

... communication cost has reached a level such that no network traffic is computed (using the OSPF methodology, as described above) to use that communication link. At that point, the switching nodes I I (n), 1 1 (n') can broadcast link state advertising messages indicating that the 1.5 communication link has failed.

It will be appreciated that...

?

#### **BUSINESS FULLTEXT**

- File 9:Business & Industry(R) Jul/1994-2007/Mar 09
  - (c) 2007 The Gale Group
- File 15:ABI/Inform(R) 1971-2007/Mar 10
  - (c) 2007 ProQuest Info&Learning
- File 16:Gale Group PROMT(R) 1990-2007/Mar 09
  - (c) 2007 The Gale Group
- File 20:Dialog Global Reporter 1997-2007/Mar 12
  - (c) 2007 Dialog
- File 47:Gale Group Magazine DB(TM) 1959-2007/Mar 01
  - (c) 2007 The Gale group
- File 75:TGG Management Contents(R) 86-2007/Mar W1
  - (c) 2007 The Gale Group
- File 80:TGG Aerospace/Def.Mkts(R) 1982-2007/Mar 08
  - (c) 2007 The Gale Group
- File 88:Gale Group Business A.R.T.S. 1976-2007/Mar 07
  - (c) 2007 The Gale Group
- File 98:General Sci Abs 1984-2007/Mar
  - (c) 2007 The HW Wilson Co.
- File 112:UBM Industry News 1998-2004/Jan 27
  - (c) 2004 United Business Media
- File 141:Readers Guide 1983-2007/Jan
  - (c) 2007 The HW Wilson Co
- File 148:Gale Group Trade & Industry DB 1976-2007/Mar 01
  - (c)2007 The Gale Group
- File 160:Gale Group PROMT(R) 1972-1989
  - (c) 1999 The Gale Group
- File 275: Gale Group Computer DB(TM) 1983-2007/Mar 09
  - (c) 2007 The Gale Group

```
File 264:DIALOG Defense Newsletters 1989-2007/Mar 09
```

(c) 2007 Dialog

File 484:Periodical Abs Plustext 1986-2007/Feb W3

(c) 2007 ProQuest

File 553: Wilson Bus. Abs. 1982-2007/Mar

(c) 2007 The HW Wilson Co

File 570:Gale Group MARS(R) 1984-2007/Mar 09

(c) 2007 The Gale Group

File 608:KR/T Bus.News. 1992-2007/Mar 12

(c)2007 Knight Ridder/Tribune Bus News

File 620:EIU:Viewswire 2007/Mar 11

(c) 2007 Economist Intelligence Unit

File 613:PR Newswire 1999-2007/Mar 12

(c) 2007 PR Newswire Association Inc

File 621: Gale Group New Prod. Annou. (R) 1985-2007/Mar 01

(c) 2007 The Gale Group

File 623:Business Week 1985-2007/Mar 09

(c) 2007 The McGraw-Hill Companies Inc

File 624:McGraw-Hill Publications 1985-2007/Mar 09

(c) 2007 McGraw-Hill Co. Inc

File 634:San Jose Mercury Jun 1985-2007/Mar 09

(c) 2007 San Jose Mercury News

File 635:Business Dateline(R) 1985-2007/Mar 10

(c) 2007 ProQuest Info&Learning

File 636:Gale Group Newsletter DB(TM) 1987-2007/Mar 09

(c) 2007 The Gale Group

File 647:CMP Computer Fulltext 1988-2007/May W3

(c) 2007 CMP Media, LLC

File 696:DIALOG Telecom. Newsletters 1995-2007/Mar 09

(c) 2007 Dialog

File 674:Computer News Fulltext 1989-2006/Sep W1

(c) 2006 IDG Communications

File 810:Business Wire 1986-1999/Feb 28

(c) 1999 Business Wire

File 813:PR Newswire 1987-1999/Apr 30

(c) 1999 PR Newswire Association Inc

File 587: Jane's Defense & Aerospace 2007/Mar W1

(c) 2007 Jane's Information Group

Set Items Description

S1 8453 OSPF OR OPEN()SHORTEST()PATH()FIRST

S2 6192576 ADVERTISEMENT OR ADVERTISI???

S3 12532 S2(3N)LINK???

S4 1909109 (WIRELESS OR MOBILE)(3N)(COMMUNICATION?? OR NETWORK??)

S5 3972 ANCHOR()POINT??

S6 585 AU=(BENDER, P? OR BENDER P?)

S7 0 S6 AND S3

S8 0 S6 AND S1

S9 18 S1(S)S3

S10 0 S9(S)S5

S11 0 S9(S)(ANCHOR? OR POINT??)

S12 9 S9 NOT PY=>2000

S13 9 RD S12 (unique items)

### 13/3,K/1 (Item 1 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2007 ProQuest Info&Learning. All rts. reserv.

00887592 95-36984

#### Multicast routing extensions for OSPF

Moy, John

Communications of the ACM v37n8 PP: 61-66+ Aug 1994

ISSN: 0001-0782 JRNL CODE: ACM

**WORD COUNT: 4298** 

...TEXT: distributes the group location information throughout the Autonomous System by flooding a new type of OSPF link state advertisement, the group-membership-LSA. This LSA labels the pieces of the map having group members...

#### 13/3,K/2 (Item 2 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

(c) 2007 ProQuest Info&Learning. All rts. reserv.

00562158 91-36512

## **OSPF - The First Wave of Next-Generation Routing Protocols**

Seifert, William M.

Business Communications Review v21n7 PP: 31-34 Jul 1991

ISSN: 0162-3885 JRNL CODE: BCR

...ABSTRACT: according to user-defined criteria. These are link-state, shortest-path first protocols, such as **Open Shortest Path First** (**OSPF**) for Transmission Control Protocol/Internet Protocol (TCP/IP) networks. There are 3 primary improvements offered...

...area partitioning. 3. They speed convergence by producing updates only as and when changes occur. OSPF's support for the IP multicast standard allows one link-state advertisement packet to be addressed to multiple destinations, rather than addressing an individual packet to each...

#### 13/3,K/3 (Item 1 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2007 The Gale Group. All rts. reserv.

# 05351411 Supplier Number: 48139850 (USE FORMAT 7 FOR FULLTEXT)

QoS issue dominates Globecom discourse -- Developers search for ways to ensure network bandwidth, latency across service types

Wirbel, Loring

Electronic Engineering Times, p39

Nov 24, 1997

Language: English Record Type: Fulltext Document Type: Magazine/Journal; Trade

Word Count: 1367

... latencies and bandwidth amounts.

IBM has been working on changes to the popular routing protocol, Open Shortest Path First (OSPF), that the company hopes will move the TCP/IP world closer to true bandwidth guarantees...

...path-selection algorithms under development preserve the precomputed route tables and directed-graph structures of OSPF, but they add new functions to OSPF 's link state advertisement (LSA): Instead of always looking for the shortest and cheapest path through a network, OSPF will be augmented to let a message sender specify needed bandwidth and anticipated maximum delays. The revised OSPF is a Bellman-Ford class, shortest-path algorithm.

To date, the only problem observed in...

13/3,K/4 (Item 1 from file: 20) DIALOG(R)File 20:Dialog Global Reporter (c) 2007 Dialog. All rts. reserv.

05305873 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Qosnetics Introduces OSPF Testing Subsystem for Internet; Company's QA Robot System is First To Apply Sophisticated Validation To OSPF Networks and Products and Support For Opaque LSAs

**BUSINESS WIRE** 

May 13, 1999

JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 1095

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... of OSPF data over long periods of time, and stress testing during periods of intense link state advertisement (LSA) changes. Also tested is the ability of the network system under test (NSUT) to...

...second to test overall performance.

OSPF Suite software also supports the new RFC 2370 opaque link state advertisement specification.

To verify that a network system under test (NSUT) is operating correctly with a...

13/3,K/5 (Item 1 from file: 88)

DIALOG(R)File 88:Gale Group Business A.R.T.S.

(c) 2007 The Gale Group. All rts. reserv.

03491618 SUPPLIER NUMBER: 15936121

Multicast routing extensions for OSPF. (Open Shortest Path First protocol)(includes related article on OSPF routing) (Special Issue:

Internet Technology)

Moy, John

Communications of the ACM, v37, n8, p61(6)

August, 1994

ISSN: 0001-0782 LANGUAGE: English RECORD TYPE: Fulltext; Abstract

WORD COUNT: 5192 LINE COUNT: 00417

... distributes the group location information throughout the Autonomous System by flooding a new type of OSPF link state advertisement, the group-membership-LSA. This LSA labels the pieces of the map having group members...

13/3,K/6 (Item 1 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB (c)2007 The Gale Group. All rts. reserv.

09912201 SUPPLIER NUMBER: 20027704 (USE FORMAT 7 OR 9 FOR FULL TEXT)

QoS issue dominates Globecom discourse. (the IEEE Globecom Conference in

Phoenix) (Industry Trend or Event)

Wirbel, Loring

Electronic Engineering Times, n982, p39(2)

Nov 24, 1997

ISSN: 0192-1541 LANGUAGE: English RECORD TYPE: Fulltext; Abstract

WORD COUNT: 1504 LINE COUNT: 00124

... tables and directed-graph structures of OSPF, but they add new functions to OSPF's link state advertisement (LSA): Instead of always looking for the shortest and cheapest path through a network, OSPF will be augmented to let a message sender specify needed bandwidth and anticipated maximum delays. The revised OSPF is a Bellman-Ford class, shortest-path algorithm.

To date, the only problem observed in...

13/3,K/7 (Item 2 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB (c)2007 The Gale Group. All rts. reserv.

05540694 SUPPLIER NUMBER: 11002429 (USE FORMAT 7 OR 9 FOR FULL TEXT)

OSPF - the first wave of next-generation routing protocols. (open shortest path first; next generation networks require new routing protocols)(includes related article)

Seifert, William M.

Business Communications Review, v21, n7, p31(4)

July, 1991

ISSN: 0162-3885 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 2276 LINE COUNT: 00190

... a router's state, such as a new type-of-service metric, also triggers a link-state advertisement.

Whenever link -state advertisements are received, each router recalculates the shortest path from that router to each...

...based on the data collected from the link-state advertisements, the paths listed in the **OSPF** routing table and the routing parameters created by the network administrator.

OSPF's method of...

...fail to converge quickly.

OSPF's support for the IP multicast standard also allows one link -state advertisement packet to be addressed to multiple destinations, rather than addressing an individual packet to each destination. To confirm delivery, OSPF requires every router to send an acknowledgment to the router from which it received the link -state advertisement packet.

Finally, in broadcast networks such as Ethernets, multiple routers frequently connect to the same...

13/3,K/8 (Item 1 from file: 275)

DIALOG(R)File 275:Gale Group Computer DB(TM)

(c) 2007 The Gale Group. All rts. reserv.

01721257 SUPPLIER NUMBER: 16275351 (USE FORMAT 7 OR 9 FOR FULL TEXT)

OSPF fundamentals. (Open Shortest Path First routing protocol)

Baker, Fred

LAN Magazine, v9, n13, p71(13)

Dec, 1994

ISSN: 0898-0012 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 3539 LINE COUNT: 00279

...ABSTRACT: collects and advertises information about its neighboring routers via a data structure called a router links advertisement. The router calculates and sorts its neighbors, finding all the reachable routers and the most optimal path. Specifics about the OSPF router, including its interface and optimization methods, are discussed in detail.

... routers to forward data only when it believes that they are both fully operational.

An OSPF router advertises its beliefs about its neighbors in a data structure called a router links advertisement. Route calculation is straightforward: The router starts with its own router links advertisement. It sorts its neighbors by distance into a "reachable routers" queue. It then finds each reachable router's router links advertisement and sorts those neighbors to the queue. Soon, it has found all the reachable routers...

...determine connectivity or update advertisements. If each lists all of its neighbors in its router links advertisement, however, the advertisements consume a lot of router memory. Subnets are places where route calculation...synchronized with all the routers on the LAN. Second, the designated router advertises a network links advertisement, listing its neighbors in the subnet. The other routers simply advertise connectivity with the designated router. This makes each router links advertisement (of which there are many) smaller, by the size of the single network links advertisement.

**OSPF INTERFACE** 

The minimum information needed by an OSPF router is its IP configuration (IP...

...a neighbor's HELLO, the neighbor is considered down, and a new network or router links advertisement is propagated to cause the network to recalculate its routes.

A DAY IN THE LIFE...external route advertisement is flooded throughout the network in the same way as the router links advertisement

External routes are handled in two steps. Among the external routes, the router chooses the...

13/3,K/9 (Item 1 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext
(c) 2007 CMP Media, LLC. All rts. reserv.

01146100 CMP ACCESSION NUMBER: EET19971124S0056

QoS issue dominates Globecom discourse - Developers search for ways to ensure network bandwidth, latency across service types

Loring Wirbel

ELECTRONIC ENGINEERING TIMES, 1997, n 982, PG39

**PUBLICATION DATE: 971124** 

JOURNAL CODE: EET LANGUAGE: English

RECORD TYPE: Fulltext

SECTION HEADING: Technology

WORD COUNT: 1371

... latencies and bandwidth amounts.

IBM has been working on changes to the popular routing protocol, 10pen Shortest Path First (OSPF), that the company hopes will move the TCP/IP world closer to true bandwidth guarantees...

...path-selection algorithms under development preserve the precomputed route tables and directed-graph structures of OSPF, but they add new functions to OSPF 's link state advertisement (LSA): Instead of always looking for the shortest and cheapest path through a network, OSPF will be augmented to let a message sender specify needed bandwidth and anticipated maximum delays. The revised OSPF is a Bellman-Ford class, shortest-path algorithm.

To date, the only problem observed in...

?